Agricultural Water Supply/Reuse Pond

Definition/Purpose

Construct agricultural ponds for water supply for irrigation, livestock watering and aquaculture recharge. Benefits may include water supply, erosion control, flood control, and sediment and nutrient reductions from farm fields.

Policies

1. The pond shall be for agricultural use and includes all associated components to meet the intent of the design.

2. The Preliminary Site Assessment Form for New Ponds and the Inventory and Evaluation Form for New Ponds (Irrigation and Livestock) must be completed.

3. A pre-construction conference including the district technical representative, designer, contractor and landowner shall be held prior to commencement of construction.

4. An Operations and Maintenance Plan is required.

5. Cost share will be based on actual cost with receipts required not to exceed the cap, plus engineering costs, if applicable. A cost estimate will be provided to the cooperator before construction begins.

6. The pond must be certified by a professional engineer or an individual with appropriate job approval authority. Requirements for JAA and final payment approval based on hazard class.

7. The pond must be designed to the reference standards below based on its hazard classification:
    a. For excavated ponds with depth of water at the auxiliary spillway of less than 3 feet above the lowest original ground along the centerline of the embankment may be designed according to the NRCS Standard 378, Criteria for Excavated Pond (page 8 of standard).
        i. For ponds in which the depth of water is more than 3 feet at the auxiliary spillway elevation, the pond will be designed in accordance with the NRCS Standard 378 and according to the hazard classifications below. These dams will be classified as an embankment pond.
    b. Low Hazard Classification – All designs must meet *either* NRCS Standard 378 or NRCS Standard 402 Code TR-60 *or* the NC Dam Safety Law (15A NCAC 02K .0100). The design components may not be mixed between the standards.
        i. Private PE design shall be submitted to Division Engineer for review and approval of Job Approval Authority. Upon Completion copies of the as-built survey should be provided to the Soil and Water Conservation

district, landowner and Division of Soil and Water Conservation. The design engineer shall complete and return the Certification of Completion.

c. Intermediate Hazard Classification – All designs for repairs must meet the NC Dam Safety Law (15A NCAC 02K .0100) or NRCS Dam 402 code TR-60 whether or not they fall under the Dam Safety Permitting Requirements. An Emergency Action Plan (EAP) shall be completed for all intermediate hazard class structures.

    i. Private PE design shall be submitted to Division Engineer for review and approval of Job Approval Authority. Upon Completion copies of the as-built survey should be provided to the Soil and Water Conservation district, landowner and Division of Soil and Water Conservation. The design engineer shall complete and return the Certification of Completion.

d. High Hazard Classification – All designs must meet NC Dam Safety Law (15A NCAC 02K).

    i. All designs must be submitted to NC Dam Safety for review and approval (see Dam Safety Flow Chart). Job Approval Authority will be granted when Certification of Approval to construct is received from NC Dam Safety. Approval for payment will be approved upon receipt of NC Dam Safety's approval to impound and an EAP approval by NC dam Safety. Copies of the as-built survey and all approval letters should be provided to the Soil and Water Conservation district, landowner and Division of Soil and Water Conservation.

8. Hazard classification must be verified with NC Dam Safety. Division or Private Engineers are responsible for submitting a request form to Dam Safety.

9. A method for distributing the water from irrigation ponds must be available. The applicant either owns irrigation equipment specified in Water Needs Assessment Tool or proposes purchasing irrigation equipment and provides supporting documentation.

10. Livestock shall be excluded from the pond. In cases of emergency, cooperators may contact their district and request a temporary exception. Duration of exception will be determined by the district and supporting notes will be included in the contract file. Emergencies may be defined as power outages, pump failures, extreme periods of drought and/or depletion or contamination of the existing water source. Livestock should not be allowed to graze on the embankment surface or auxiliary spillway. When the soil is wet, livestock can damage the vegetation and destroy the smooth surface resulting in ponded water or erosion from concentrated runoff. The resulting rough surface is difficult to mow.

11. Ponds for irrigation only, without livestock access, do not require fencing.

12. For fencing to be eligible for cost share assistance, the minimum standard the cooperator shall follow is the NRCS 382 standard for the appropriate type of operation for stream exclusion/interior fencing.

a. For livestock operations, the minimum standard the cooperator shall follow is the NRCS 382 standard for stream exclusion/interior fencing with the following exceptions:
    i. Corner brace post assembly requirements in curves or turns from 20 degrees -50 degrees. Technical staff with appropriate job approval authority will determine whether or not corner brace assemblies are required in curves or turns from 20 degrees -50 degrees. For turns greater than 50 degrees, corner brace assemblies are required.
    ii. Allow the use of existing materials. Installation must be certified by technical staff with appropriate job approval authority that the fencing will meet the contract life (10 years).
b. The applicable funding cap for pond construction shall include the cost of cost-shared fencing.

13. Where fencing is required, but not cost-shared the applicant shall not be required to meet the NRCS 382 standard, only to demonstrate that the fencing is adequate to exclude livestock.

14. Additional water can be used to fill ponds including stormwater runoff, wells, streams and other water resources.

15. The pond shall not be used as a commercial aquaculture production pond.

16. In cases where aquaculture production water is being collected, NRCS Standard 313 (Waste Storage Facility) shall be used.

17. Cooperators are responsible for obtaining and complying with all required permits.

18. If an irrigation pond is converted to a livestock pond during the contract maintenance period, fencing is required and is not eligible for cost share assistance.

19. If the pond is no longer used for agriculture during the maintenance period, the cost share contract shall be considered out of compliance.

20. It is the cooperator's responsibility to ensure the entire structure is maintained for the life of the contract (10 yrs.). Ensure the Cooperator Acknowledgement Form is completed and signed by the cooperator acknowledging their responsibilities for the maintenance of the BMP.

AGRICULTURAL WATER SUPPLY/REUSE POND	
Maintenance Period	10 YEARS
BMP Units	EACH
Required Effects	• Volume (gallons) of Water Storage Increased or Created (annually) AND • Irrigation: Acres irrigated (annually) OR • Livestock: Animal type and number
JAA	• Design must be signed and sealed by a Professional Engineer
Supporting NRCS Standards	• ENG - 378 – Pond • ENG - 402 – Dam • NC Dam Safety Law (15A NCAC 02K) • ENG - 313 - Waste Storage Facility *(aquaculture only)*
Cost Information	• Actual cost - paid based on receipts • Maximum cost share amount $43,500 (75%) OR $52,200 (90%)
CS2 Reference Materials	• NC-ACSP-11 Signature Page • Map with BMP location, fields, and roads. • Operation and Maintenance Plan (OMP form) • Cooperator Acknowledgement Form • Preliminary Site Assessment Form • Inventory and Evaluation Form (Irrigation or Livestock) • Water Balance Results • Conservation Plan • Certification of Completion, if applicable
Additional Spot-check requirements	Annually